PER Initial Alternatives (7)

- Conventional Biological Nutrient Removal
- Simultaneous Nitrification & Denitrification
- Membrane Bioreactors (MBR)
- No Action
- Zero Discharge
- Alternate Discharge
- Sequencing Batch Reactors

Phosphorus Limitation

- Discharge limitation currently 0.1 mg/L
- Limit based on water quality standards
- Affordability of the WWTP improvements, does not have any bearing on reducing the phosphorus limitation

Feasible Alternatives

These alternatives recycle return activated sludge to an anaerobic selector ahead of the head works, for phosphorus removal

- Conventional Biological Nutrient Removal
- Simultaneous Nitrification & Denitrification
- Membrane Bioreactors

Cost Estimate
Preferred Alternatives

(to be determined by the Joint Use Board, & WWTP Staff)

- Conventional Biological Nutrient Removal (Alt. 1)

  Capital Cost

  $25,897,000

  O & M Cost

  $585,066/year

- Simultaneous Nitrification & Denitrification (Alt.2)

  Capital Cost

  $25,228,000

  O & M Cost

  $556,730/year

Current Funding

- Village of Ruidoso
- JGTRRA 03-T-023 $500,000
- STAG FY 03 $867,200
- STAG FY 01 $1,256,805

Total Village Funding $2,624,005

- City of Ruidoso Downs
- JGTRRA 03-T-026 $500,000
- SAP-04-0194 $150,000
- SAP-05-0084 $350,000
- Sap-05-1182 $25,000
- STAG FY 05 $144,300

Total City Funding $1,169,300

Total Available Funding for WWTP $3,793,305

PER Recommendations

- Wastewater treatment plant expansion will need to be carried out into 2 phases

  -Phase 1 expand plant to 2.5 mgd

  -Phase 2 expand plant to 3.75 mgd
- Install 2-meter belt thickener and 2-meter belt press
- Acquire approx. 2 acres land to west of plant to avoid construction staging